

1. (Currently Amended) An amino acid sequence comprising the sequence presented as SEQ ID No. 1 or a variant, homologue, fragment or derivative thereof, which sequence comprises at least 25 contiguous amino acids selected from the amino acids 1-194 of SEQ ID No. 1.

2. (Original) A nucleotide sequence encoding the amino acid sequence as defined in claim 1.

3. (Currently Amended) A nucleotide sequence comprising the sequence presented as SEQ ID No. 2 or a variant, homologue, fragment or derivative thereof, which sequence comprises a nucleotide sequence encoding at least 25 contiguous amino acids selected from the amino acids 1-194 of SEQ ID No. 1.

4. (Previously Amended) A nucleotide sequence that is capable of hybridising to the nucleotide sequence according to claim 3, or the opposite strand thereof.

5. (Cancelled)

6. (Previously Amended) A vector comprising the nucleotide sequence according to claim 2.

7. (Previously Amended) A host cell into which has been incorporated the nucleotide sequence according to claim 2.

8. (Previously Amended) An assay method for identifying an agent that can affect PDEXV activity, the assay method comprising

contacting an agent with an amino acid according to claim 1; and
measuring the activity of PDEXV;

wherein a difference between a) PDE activity in the absence of the agent and b) PDE activity in the presence of the agent is indicative that the agent can affect PDEXV activity.

9. (Original) An assay method according to claim 8 wherein the assay is to screen for agents useful in the treatment of a cardiovascular disorder and/or disorders found in any one or more of the corpus cavernosum, kidney, liver, skeletal muscle, testis, prostate.

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10. (Previously Amended) A process comprising the steps of:

- (a) performing the assay according to claim 8;
- (b) identifying one or more agents that do affect PDEXV activity; and
- (c) preparing a quantity of those one or more identified agents.

11. (Previously Amended) A method of affecting *in vivo* PDEXV activity with an agent;
wherein the agent is capable of affecting PDEXV activity in an *in vitro* assay method;
wherein the *in vitro* assay method is the assay method defined in claim 8, said method comprising administering said agent to a subject.

12. (Previously Amended) A pharmaceutical composition for the treatment of a disease or condition associated with PDEXV, said composition comprising an agent capable of having an effect on the activity of PDE when assayed *in vitro* by the assay method according to claim 8.

13. (Original) An enzyme capable of having an immunological reaction with an antibody raised against PDEXV.

14. (Original) A nucleotide sequence coding for a PDE, wherein the nucleotide sequence is obtainable from NCIMB 41025.

15. (Original) A PDE wherein the PDE is expressable from a nucleotide sequence obtainable from NCIMB 41025.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Original) A PDEXV agonist wherein the PDEXV is as defined in claim 1 or is the nucleotide sequence coding for same.

20. (Original) A PDEXV antagonist wherein the PDEXV is as defined in claim 1 or is the nucleotide sequence coding for same.

21. (Original) A recombinant PDEXV enzyme.

22. (Original) A recombinant nucleotide sequence encoding a PDEXV enzyme.

23. (Cancelled)

24. (Currently Amended) An assay method for identifying an agent that can affect PDE1B2 PDEXV expression, the assay method comprising:

contacting an agent with a nucleotide sequence according to claim 2; and
measuring the expression of PDE1B2 PDEXV;

wherein a difference between a) PDE expression in the absence of the agent and b) PDE expression in the presence of the agent is indicative that the agent can affect PDE1B2 PDEXV expression.

25. (Previously Added) An assay method according to claim 24 wherein the assay is to screen for agents useful in the treatment of a cardiovascular disorder, a GI disorder, and/or disorders found in any any one or more of the cardiovascular system, the GI system, spleen.

26. (Currently Amended) A process comprising the steps of:

(a) performing the assay according to claim 24;
(b) identifying one or more agents that do affect PDE1B2 PDEXV expression; and
(c) preparing a quantity of those one or more identified agents.

27. (Cancelled)

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